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10/802,194

03/17/2004

Roman Heckt

10541-1989

3418

29074

7590

12/07/2006

EXAMINER

FORD, JOHN K

VISTEON

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CHICAGO, IL 60610

ART UNIT

PAPER NUMBER

3744

DATE MAILED: 12/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/802,194

Applicant(s)

HECKT ET AL.

Examiner

John K. Ford

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/26/06
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4, 5, 7 & 8 is/are pending in the application.
- 4a) Of the above claim(s) 7 & 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/26/06 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner *as containing new matter*.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Applicant's response of September 26, 2006 has been carefully studied. The amendments made to paragraphs 0026-0028 as well as the proposed drawing changes to Figures 3-5 (also dated September 26, 2006) clearly constitute "new matter" unsupported by the original disclosure and are denied entry on that basis. The Examiner's reasoning is as follows.

See the lack description rejection immediately below.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 4 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The amendments made to the drawings to show entirely new and previously undisclosed walls between the right-hand set of tubes and the left-hand set of tubes in amended drawing Figures 3, 4 and 5 are not supported by anything in the original specification, original drawings or original claims.

In the amendment to paragraph 0026 received September 26, 2006 applicant has completely changed the original meaning of the last sentence in that paragraph. The last sentence in paragraph 0026, in spite of its awkward wording, clearly conveys

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that the words "collector" or "collector region" should be interpreted to mean, in the alternative (i.e. "reversed sense") the "distributor" or "distributor region." One of ordinary skill in this art would interpret that to mean that the external coolant connections could be reversed such that the flow of coolant would be reversed through the heat exchanger and the inlet region (i.e. the "distributor region") for the coolant would, in the reversed connection, become the outlet region (i.e. the "collector region"). That is all that it conveys. The last sentence of the new matter amendment of paragraph 0026 inexplicably deletes "collector region" and adds "distributor or distributor regions" completely changing the meaning by adding additional structure to paragraph 0026, not remotely contemplated in the original. The amendment of September 26, 2006 also very clearly adds "new matter" by making the "collector" a "collector unit". In the original disclosure these are two separate and distinct structures and are not synonymous terms.

Moreover, the original first sentence of paragraph 0028 does not say that there is a separate coolant collector and coolant distributor. The original sentence could and would be properly interpreted to be referring to collectively to both the "separate collector and distributor units" shown in Figure 3 for the coolant and refrigerant (except that there is only a "collector unit 8" shown in Figure 3, no "distributor unit". "Units" and "regions" are clearly not synonymous in the original disclosure. Structure is missing from the original disclosure and no amount of artful manipulation of the original wording of the specification will necessarily arrive at the structures being added to Figures 3-5.

This is simply a naked attempt to add new matter to the drawings not remotely supported by the original written portion of the disclosure.

Original paragraph 0028 goes on to discuss a coolant collector region 9 and a refrigerant collector region 10, both (in Figure 3-4) within the collector unit 8. Consistent with original paragraph 0027, it is apparent (by reversal of the external connections, as discussed above) that each of these collector regions 9 and 10 could double as a distributor region. It does not add a separate distributor unit and it certainly does not support the specific partitioning added (as "new matter") to drawing Figures 3-5.

The examiner's interpretation is not inconsistent with the original disclosure given the excessive ambiguity in both the original wording and drawings. The original first sentence in paragraph 0028 states that there are separate collector and distributor units, not simply regions as argued by counsel. The coolant collector unit 8 is one of those units and the other (i.e. the distributor unit) is simply not shown or disclosed in Figure 3 (notwithstanding what is stated in the first sentence of Paragraph 0028), leaving it up to the reader to imagine what structure it might be or how it would be constructed and/or function. Yes, clearly something is missing from the original disclosure as counsel well recognizes it the elaborate attempt to rewrite the original specification to support the "new matter" he has added to the drawings. It is submitted that the missing "distributor unit" could be much more than the "new matter" partition plates applicant persists in attempting to add to the drawings without proper basis in the original disclosure. There is absolutely no basis to change "collector unit" and "distributor unit" to "collector region " and "distributor region." In the original disclosure

collector unit 8 had a different reference numeral (i.e. 8), consistently used throughout the specification to denote something other than a "region" (regions being denoted consistently with separate and distinct reference numerals 9 and 10). The term "unit" denotes a structure and the term "region" denotes a location in space. One is structure and the other is location, and those terms are used consistently in the original disclosure to mean different things. In applicant's rewrite of paragraphs 0026-0028, the original distinction is not only lost, but it is used as a proxy to add new structure (an originally undisclosed "collector unit") to the drawings (i.e. a series of "partition plates" unsupported by the original disclosure). Regions and units were not the same thing in the original disclosure and attempting to make them the same thing in the September 26, 2006 rewrite of the specification is clearly self-serving "new matter" to support applicant's arguments and new matter drawing revisions and to salvage a fatally defective disclosure.

There is no support in the original disclosure to permit the addition of these new and previously undisclosed walls between the right-hand set of tubes and the left-hand set of tubes in amended drawing Figures 3, 4 and 5. The drawings as submitted September 26, 2006 contain new matter and are denied entry.

In the response of March 27, 2006 applicant states that the following sentence permits the addition of the precisely located partition walls in the November 16, 2005 proposed drawing corrections: "The term collector, or collector region, respectively, is, with the corresponding function in reversed sense, also meant as distributor or distributor region, respectively, without special reference." As grammatically difficult as

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that phraseology is, all that it conveys to the examiner is that whatever is called the "collector" or "collector region" could equally well be called the "distributor" or "distributor region". It does not in any way suggest the, precisely and differently drawn in each of the embodiments, "new matter" partition that counsel proposes adding to the drawings. In addition counsel references paragraph 0028, pertaining to non-elected Figure 3 (not the elected and currently examined Figure 4) that states: "In Fig. 3 a collector unit 8 [including collector regions 9 and 10] for a heat exchanger 3 with separate collector and distributor units is shown." A fair reading of this statement is that in Figure 3 a collector unit 8 [including collector regions 9 and 10] for a heat exchanger 3 is shown (and the examiner agrees with that much of the statement, element 8 is a "collector") and that the heat exchanger 3 has separate collector and distributor units (the distributor unit not being shown in any drawing or in any way placed in operative relationship with the collector unit).

Renaming the "collector unit" 8 as the "distributor unit" 8 as suggested by the phrase: "The term collector, or collector region, respectively, is, with the corresponding function in reversed sense, also meant as distributor or distributor region, respectively, without special reference", as counsel argues cures the deficiency in the original disclosure, simply transposes the problem, wherein the collector unit is not being shown in any drawing or in any way placed in operative relationship with the distributor unit 8.

The enablement rejection reproduced immediately below is deemed applicable to the now amended claims based on the fact that applicant cannot rely on new matter, unsupported by the original disclosure, to overcome an enablement rejection.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 4 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claims 1, 4 and 5, in the instant application it is not explained how the coolant fluid in collector region 9 flows into and out of pipes 6 in Figure 4 and then to the external connection(s) of coolant circuit 1 shown in Figure 1. In other words, if coolant enters collector region 9 from the coolant tubes 6 shown in Figure 4, where does the coolant enter those tubes? There doesn't appear to be an operative coolant circuit for the coolant disclosed with regard to the passage of coolant to and from collector region 9. If applicant maintains otherwise, please explain the precise flow path that the coolant follows from the inlet to the outlet of the collector region and why the coolant doesn't just

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flow through the collector region without circulating through any of the tubes 6, without the introduction of "new matter" that is unsupported by the original disclosure. There is nothing to support the newly added limitations that in both the coolant and refrigerant circuits the tubes are configured to distribute fluid from and return [i.e. collect fluid to] fluid to the collector. By definition a collector collects fluid and a distributor distributes fluid. The same structure does not do both.

As a matter of interpretation, claims 1, 4 and 5 have been construed here to be directed to a heat exchanger, per se. There is present in the claims much functional language regarding the intended manner of operation and that has not been given weight in assessing the patentability of the heat exchanger itself, consistent with MPEP 2114, incorporated here by reference. Applicant has not responded to this statement therefore is deemed to have accepted it as controlling claim interpretation here.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The examiner is completely confused by applicant's new claim language. The collector unit 8 including collector regions 9 and 10 collects fluid. That much is clear.

There is however no disclosure to support that a "collector" distributed fluid. A distinct, inadequately disclosed structure (a distributor) is apparently responsible for that function. The specification states: "The term collector, or collector region, respectively, is, with the corresponding function in reversed sense, also meant as distributor or distributor region, respectively, without special reference." As grammatically difficult as that phraseology is, all that it conveys to the examiner is that whatever is called the "collector" or "collector region" could equally well be called the "distributor" or "distributor region". It does not in any way suggest the, precisely and differently drawn in each of the embodiments, "new matter" partition that counsel proposes adding to the drawings, nor does it suggest that the collector simultaneously performs the function of collection and distribution of fluid.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Makino et al (6,095,239), particularly Figures 24-27.

Figures 24-27 of Makino et al show the collector region of one multi-tubular heat exchanging circuit at least partially surrounding the collector region of another multi-tubular heat exchanging circuit. Pipe 479 in Figure 24 (part of a refrigerant collector) is located inside coolant collector 25. The tubes are configured to distribute fluid (refrigerant or coolant) from or return fluid. The two heat exchanging circuits are arranged one after the other in the direction of the ambient fluid over the two heat exchanging circuits. The other Figures (e.g. Figure 1) may be relevant as well, giving the limitation in claim 1 "partly surrounded" its broadest reasonable meaning. Applicant argues in the September 26, 2006 response that pipe 479 is "clearly shown as a separate component from the circular tank 31." Applicant's argument is not persuasive because nothing in claim 1 (or claims 4 or 5) precludes the interior of pipe 479 from being construed as a refrigerant collector or distributor region. Furthermore, nothing in claim 1, remotely suggests that the examiner cannot fairly consider circular tank 31 and pipe 479 together as "refrigerant collector region" (i.e. a finite volume located in space). Claim 1 by its own terms is satisfied when the "refrigerant collector region is partly surrounded by the coolant collector region" (emphasis supplied). Finally the reference to a "reservoir unit " at the top of page 14 of applicant's September 26, 2006 response is

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not understood. Applicant isn't claiming a "reservoir unit", whatever that is, in any of claims 1, 4 or 5.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Makino as applied to claim 1 above, and further in view of Huggins (3,045,979).

Huggins shows two rows of staggered tubes 6, offset from one another in such a way that the front set of tubes does not "shade" the rear set of tubes with respect to the flow of ambient air. To have configured the tubes (35 and 29) of the two heat exchanging circuits in Makino that are arranged one after the other in the direction of the ambient fluid over the two heat exchanging circuits in the offset manner taught by Huggins for the purpose of improving heat transfer would have been obvious to one of ordinary skill in the art.

The recitations of intended fluids, directions and intended manners of operation of the device are not given patentable weight in a claim directed to a heat exchanger apparatus. See MPEP 2114, incorporated here by reference and in particular, Ex parte Masham, 2 USPQ2d 1647 (BPAI 1987). The apparatus does undergo a metamorphosis into a new apparatus merely by affixing instructions to it as to how it will be used.

Claims 1, 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Makino or Makino/Huggins as applied to claims 1 and 5 above, and further in view of Khelifa (US 2001/0001982) or Ben Fredj (US 6,810,952).

To have made the compound radiator/evaporator 3 of Khelifa in the manner taught by Makino or Makino/Huggins to minimize the use of space in the vehicle would have been obvious to one of ordinary skill in the art. Likewise, to have made the evaporator/radiator (10, 20) of Ben Fredj in the manner taught by Makino or Makino/Huggins to minimize the use of space in the vehicle would have been obvious to one of ordinary skill in the art.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John K. Ford whose telephone number is 571-272-4911. The examiner can normally be reached on Mon.-Fri. 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John K. Ford
Primary Examiner